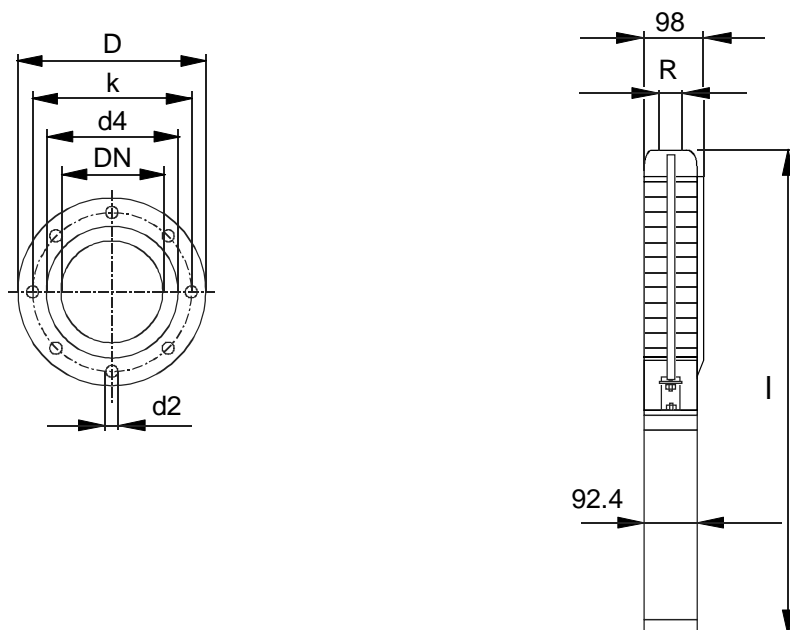


## Specification

- multistage centrifugal pump in strap design coupled with **oddesse** submersible motor
- discharge end with integrated non-return valve
- driven by three-phase or mono-phase AC motors
- minimal water level above the pump unit 1 m
- min. cooling flow 0.2 m/s, max. ambient temperature 30 °C (higher temperature on request)
- pure, clean water with content of solid up to 50 mg/l
- standard connection: R = G1½ po-ss-1.5/4.5, -2.5/4.5 and -4/4.5  
R = G2 po-ss-7/4.5 and -13/4.5 (pipe thread according to DIN ISO 228 part 1)
- other connections on request
- hydraulic performance tests for acceptance according to DIN EN ISO 9906 class 2
- special design (Horizontal installation, etc.) on request
- minimum efficiency index MEI ≥ 0.4

## Main dimensions



## Dimensions of adapters

Type	reduction thread	adapters						
		thread ⇒ flange	dimensions					
			D [mm]	b [mm]	k [mm]	d4 [mm]	d2 [mm]	m [kg]
po-ss-1.5/4.5 po-ss-2.5/4.5 po-ss-4/4.5 po-ss-7/4.5 po-ss-13/4.5	G2 ⇒ G1 ½ G1 ½ ⇒ G2	G1 ½ ⇒ DN32, PN16	140	16	100	78	4x ø18	2.5
		G1 ½ ⇒ DN32, PN40	140	18	100	78	4x ø18	2.7
		G2 ⇒ DN50, PN16	165	18	125	102	4x ø18	3.5
		G2 ⇒ DN50, PN40	165	20	125	102	4x ø18	3.7
		G2 ⇒ DN65, PN16	185	18	145	122	4x ø18	4.1
		G2 ⇒ DN65, PN40	185	22	145	122	8x ø18	4.3
		G2 ⇒ DN80, PN16	200	20	160	138	8x ø18	4.7
		G2 ⇒ DN80, PN40	200	24	160	138	8x ø18	5.7

Flange dimensions according to DIN 2633 (PN16) and DIN 2635 (PN40)

Material: stainless steel

PN nominal pressure [bar], DN nominal diameter [mm], b thickness of flange [mm], m weight [kg]

Flanges with 2 cable recesses

subject to alterations

## Material of construction

According to DIN

components	design	
	standard-version	N-version
impeller	stainless steel / 1.4301	stainless steel / 1.4401/14571
stage casing, diffuser	stainless steel / 1.4301	stainless steel / 1.4401
suction casing, outlet branch	stainless steel / 1.4301	stainless steel / 1.4401
radial bearing	stainless steel 1.4401 / rubber	
suction strainer	stainless steel / 1.4301	stainless steel / 1.4401
coupling	stainless steel / 1.4301	stainless steel / 1.4401
shaft	stainless steel / 1.4301	stainless steel / 1.4401
screws, nuts and bolts	stainless steel / 1.4301	stainless steel / 1.4401
motor	see chapter submersible motors	

According to AISI

components	design	
	standard-version	N-version
impeller	stainless steel / AISI 304	stainless steel / AISI 316
stage casing, diffuser	stainless steel / AISI 304	stainless steel / AISI 316
suction casing, outlet branch	stainless steel / AISI 304	stainless steel / AISI 316
radial bearing	stainless steel AISI 316 / rubber	
suction strainer	stainless steel / AISI 304	stainless steel / AISI 316
coupling	stainless steel / AISI 304	stainless steel / AISI 316
shaft	stainless steel / AISI 304	stainless steel / AISI 316
screws, nuts and bolts	stainless steel / AISI 304	stainless steel / AISI 316
motor	see chapter submersible motors	

**oddesse** reserve the right to employ construction materials following German (DIN) standard

### Note:

The minimum efficiency index (MEI) is based on the full impeller diameter. All pumps belonging to this series reach to delivery only with full impeller diameter.

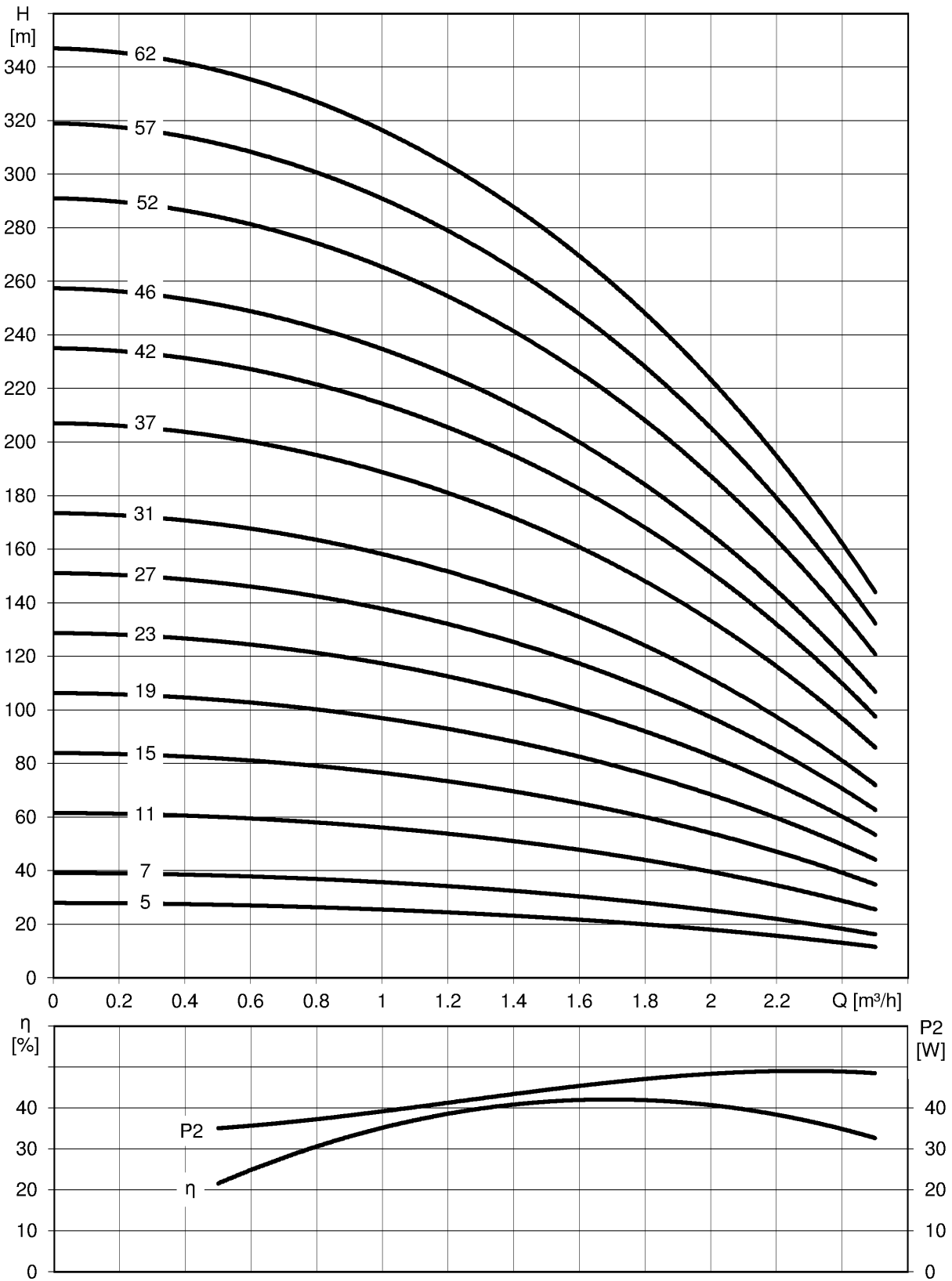
The trimming of the impeller can adapt the pump to a fixed duty point, leading to reduced energy consumption. The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter.

The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

Information about the efficiency reference value is available at [www.europump.org](http://www.europump.org), reference value charts are available at [www.europump.org/efficiencycharts](http://www.europump.org/efficiencycharts).

subject to alterations

**po-ss-1.5/4.5**  
2850 1/min - 50 Hz



subject to alterations

**po-ss-1.5/4.5**  
2850 1/min - 50 Hz

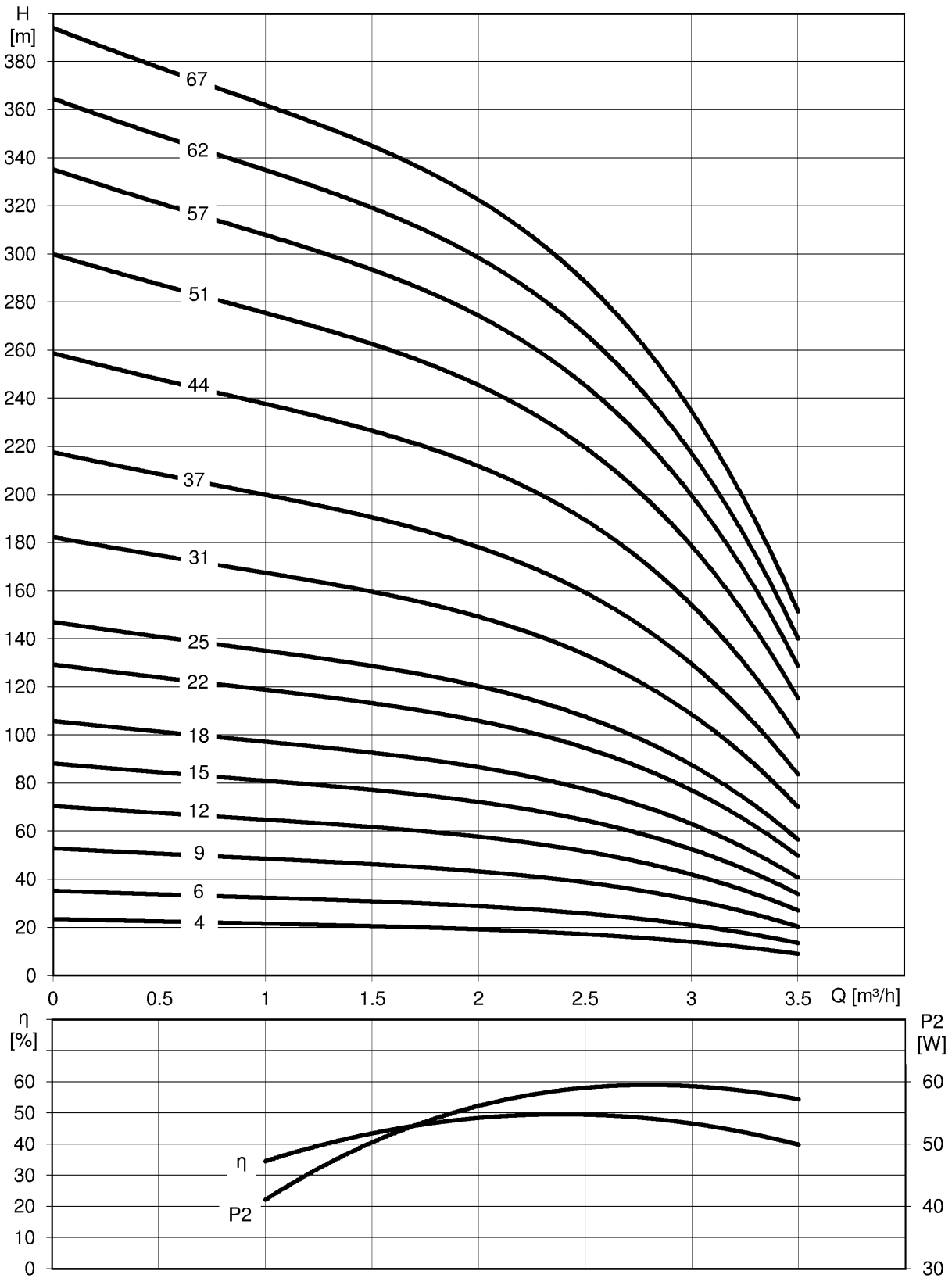
Type	Power [kW] [HP]		Amperes 400V [A]	Delivery rate Q								Length l [mm]	Weight m [kg]	
				[l/s]	0.14	0.28	0.35	<b>0.42</b>	0.49	0.56	0.63			0.69
				[m³/h]	0.50	1.00	1.25	<b>1.50</b>	1.75	2.00	2.25			2.50
<b>po-ss-1.5- 5/4.5</b>	0.37	0.5	1.6	Delivery head H [m]	27	25	24	<b>23</b>	20	18	15	12	541	9
<b>po-ss-1.5- 7/4.5</b>	0.37	0.5	1.6		38	36	34	<b>32</b>	29	25	21	16	589	10
<b>po-ss-1.5-11/4.5</b>	0.55	0.75	1.9		60	56	53	<b>50</b>	45	40	33	26	706	12
<b>po-ss-1.5-15/4.5</b>	0.75	1.0	2.4		82	76	73	<b>68</b>	61	54	45	35	832	15
<b>po-ss-1.5-19/4.5</b>	1.1	1.5	3.4		104	97	92	<b>86</b>	78	68	57	44	949	17
<b>po-ss-1.5-23/4.5</b>	1.1	1.5	3.4		126	117	111	<b>104</b>	94	83	69	53	1045	19
<b>po-ss-1.5-27/4.5</b>	1.5	2.0	4.4		148	138	131	<b>122</b>	111	97	81	63	1204	22
<b>po-ss-1.5-31/4.5</b>	1.5	2.0	4.4		170	158	150	<b>140</b>	127	112	94	72	1300	23
<b>po-ss-1.5-37/4.5</b>	2.2	3.0	5.9		202	189	179	<b>167</b>	152	133	112	86	1490	27
<b>po-ss-1.5-42/4.5</b>	2.2	3.0	5.9		230	214	203	<b>189</b>	172	151	127	98	1610	29
<b>po-ss-1.5-46/4.5</b>	2.2	3.0	5.9		252	234	223	<b>207</b>	188	165	139	107	1707	30
<b>po-ss-1.5-52/4.5</b>	3.0	4.0	8.3		284	265	252	<b>234</b>	213	187	157	121	2003	39
<b>po-ss-1.5-57/4.5</b>	3.0	4.0	8.3		312	291	276	<b>257</b>	234	205	172	132	2123	41
<b>po-ss-1.5-62/4.5</b>	3.0	4.0	8.3		339	316	300	<b>279</b>	254	223	187	144	2244	43

up to 3.7 kW also available in 1 ~ / 230 V version

minimum efficiency index MEI ≥ 0.4

subject to alterations

**po-ss-2.5/4.5**  
2850 1/min - 50 Hz



subject to alterations

**po-ss-2.5/4.5**  
2850 1/min - 50 Hz

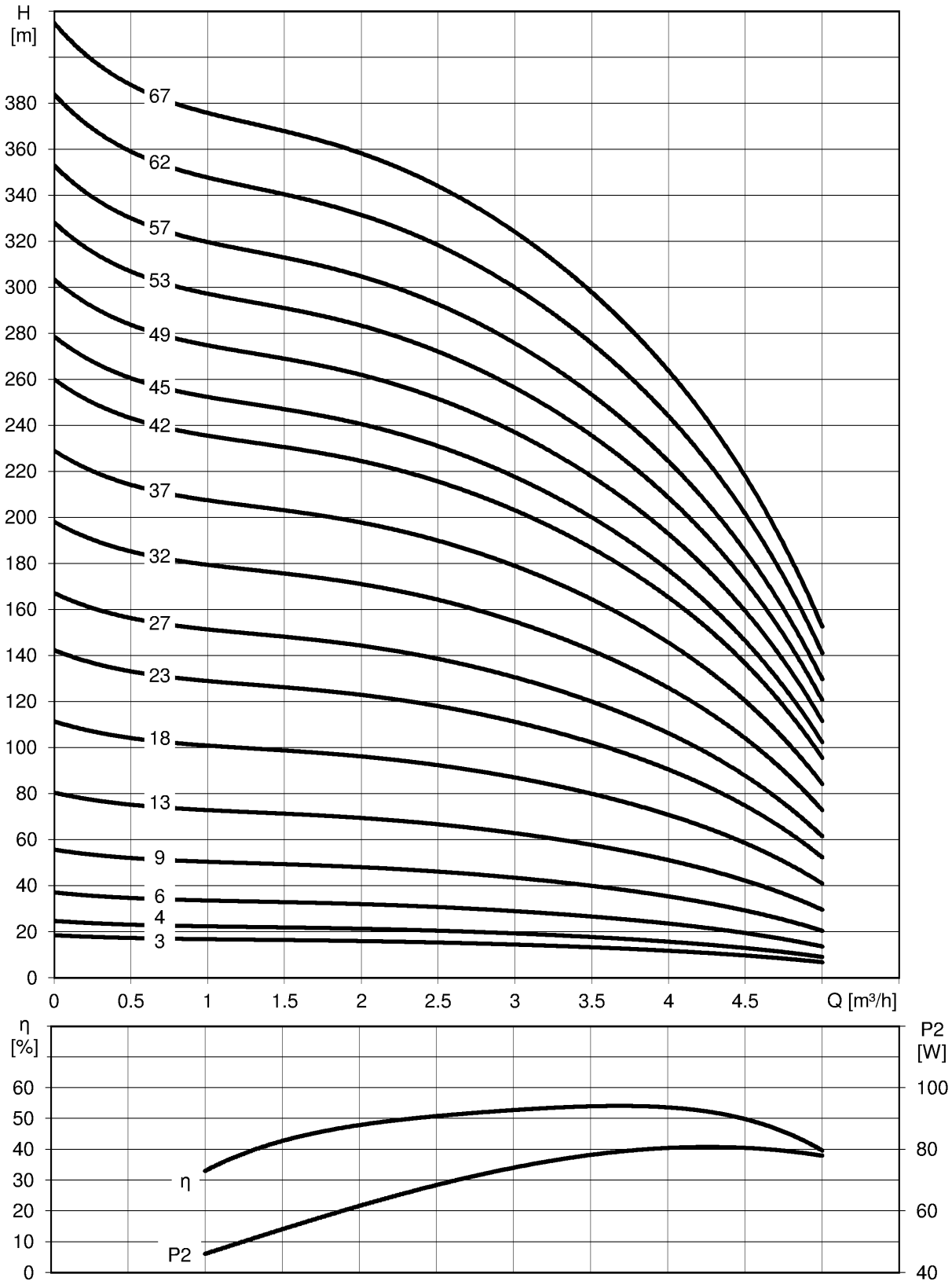
Type	Power [kW] [HP]		Amperes 400V [A]	Delivery rate Q									Length l [mm]	Weight m [kg]
				[l/s]	0.28	0.42	0.56	<b>0.69</b>	0.76	0.83	0.9	0.97		
				[m³/h]	1.00	1.50	2.00	<b>2.50</b>	2.75	3.00	3.25	3.50		
<b>po-ss-2.5- 4/4.5</b>	0.37	0.5	1.6	Delivery head H [m]	22	21	19	<b>17</b>	16	14	12	9	516	9
<b>po-ss-2.5- 6/4.5</b>	0.37	0.5	1.6		32	31	29	<b>26</b>	24	21	18	14	565	10
<b>po-ss-2.5- 9/4.5</b>	0.55	0.75	1.9		49	46	43	<b>39</b>	35	32	26	20	657	12
<b>po-ss-2.5-12/4.5</b>	0.75	1.0	2.4		65	62	58	<b>52</b>	47	42	35	27	759	14
<b>po-ss-2.5-15/4.5</b>	1.1	1.5	3.4		81	77	72	<b>65</b>	59	53	44	34	852	16
<b>po-ss-2.5-18/4.5</b>	1.1	1.5	3.4		97	93	87	<b>78</b>	71	63	53	41	924	17
<b>po-ss-2.5-22/4.5</b>	1.5	2.0	4.4		119	113	106	<b>95</b>	87	77	64	50	1083	20
<b>po-ss-2.5-25/4.5</b>	1.5	2.0	4.4		135	129	120	<b>108</b>	99	88	73	57	1155	21
<b>po-ss-2.5-31/4.5</b>	2.2	3.0	5.9		167	160	149	<b>134</b>	122	109	91	70	1345	25
<b>po-ss-2.5-37/4.5</b>	3.0	4.0	8.3		200	191	178	<b>160</b>	146	130	108	84	1640	34
<b>po-ss-2.5-44/4.5</b>	3.0	4.0	8.3		238	227	211	<b>190</b>	173	155	129	100	1809	36
<b>po-ss-2.5-51/4.5</b>	4.0	5.5	10.0		276	263	245	<b>220</b>	201	180	149	116	2048	42
<b>po-ss-2.5-57/4.5</b>	4.0	5.5	10.0		308	294	274	<b>246</b>	225	201	167	129	2193	44
<b>po-ss-2.5-62/4.5</b>	4.0	5.5	10.0		335	319	298	<b>267</b>	244	218	181	141	2313	45
<b>po-ss-2.5-67/4.5</b>	4.0	5.5	10.0		362	345	322	<b>289</b>	264	236	196	152	2434	47

up to 3.7 kW also available in 1 ~ / 230 V version

minimum efficiency index MEI ≥ 0.4

subject to alterations

**po-ss-4/4.5**  
2850 1/min - 50 Hz



subject to alterations

**po-ss-4/4.5**  
2850 1/min - 50 Hz

Type	Power [kW] [HP]		Amperes 400V [A]	Delivery rate Q									Length l [mm]	Weight m [kg]
				[l/s]	0.28	0.56	0.83	0.97	1.11	1.25	1.32	1.39		
				[m³/h]	1.0	2.0	3.0	3.5	4.0	4.5	4.75	5.0		
po-ss-4- 3/4.5	0.37	0.5	1.6	Delivery head H [m]	17	16	15	13	12	10	8	7	492	9
po-ss-4- 4/4.5	0.37	0.5	1.6		22	21	19	18	16	13	11	9	516	9
po-ss-4- 6/4.5	0.55	0.75	1.9		34	32	29	26	24	19	17	14	585	11
po-ss-4- 9/4.5	0.75	1.0	2.4		50	48	44	40	36	29	25	21	687	13
po-ss-4-13/4.5	1.1	1.5	3.4		73	70	63	57	52	42	36	30	804	15
po-ss-4-18/4.5	1.5	2.0	4.4		101	96	87	79	72	58	50	41	986	19
po-ss-4-23/4.5	2.2	3.0	5.9		129	123	111	101	92	74	64	53	1152	22
po-ss-4-27/4.5	2.2	3.0	5.9		151	145	131	119	108	87	75	62	1248	24
po-ss-4-32/4.5	3.0	4.0	8.3		179	171	155	141	128	104	89	74	1520	32
po-ss-4-37/4.5	3.0	4.0	8.3		207	198	179	163	148	120	103	85	1640	34
po-ss-4-42/4.5	4.0	5.5	10.0		235	225	203	185	168	136	117	97	1831	39
po-ss-4-45/4.5	4.0	5.5	10.0		252	241	218	198	180	146	125	103	1903	40
po-ss-4-49/4.5	4.0	5.5	10.0		275	263	237	216	196	159	136	113	2000	41
po-ss-4-53/4.5	5.5	7.5	14.5		297	284	256	233	212	172	147	122	2166	46
po-ss-4-57/4.5	5.5	7.5	14.5		319	305	276	251	228	185	158	131	2263	47
po-ss-4-62/4.5	5.5	7.5	14.5		347	332	300	273	248	201	172	143	2383	49
po-ss-4-67/4.5	5.5	7.5	14.5	375	359	324	295	268	217	186	154	2504	51	

up to 3.7 kW also available in 1 ~ / 230 V version

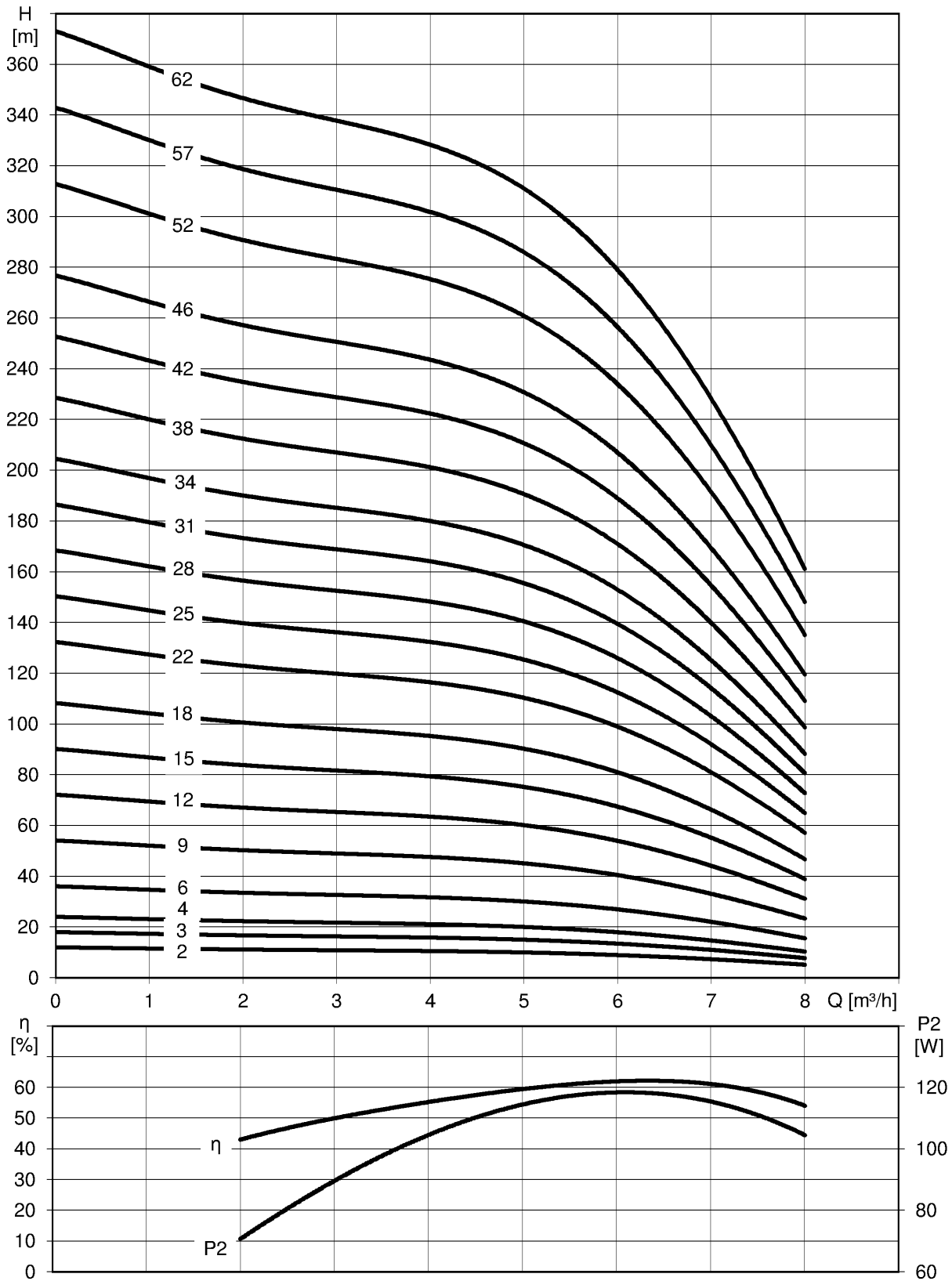
minimum efficiency index MEI ≥ 0.4

subject to alterations



**po-ss-7/4.5**

2850 1/min - 50 Hz



subject to alterations

**po-ss-7/4.5**  
2850 1/min - 50 Hz

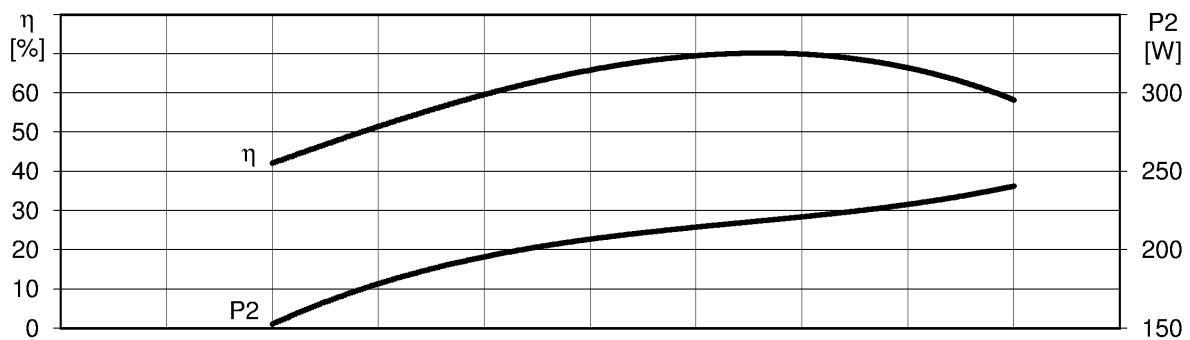
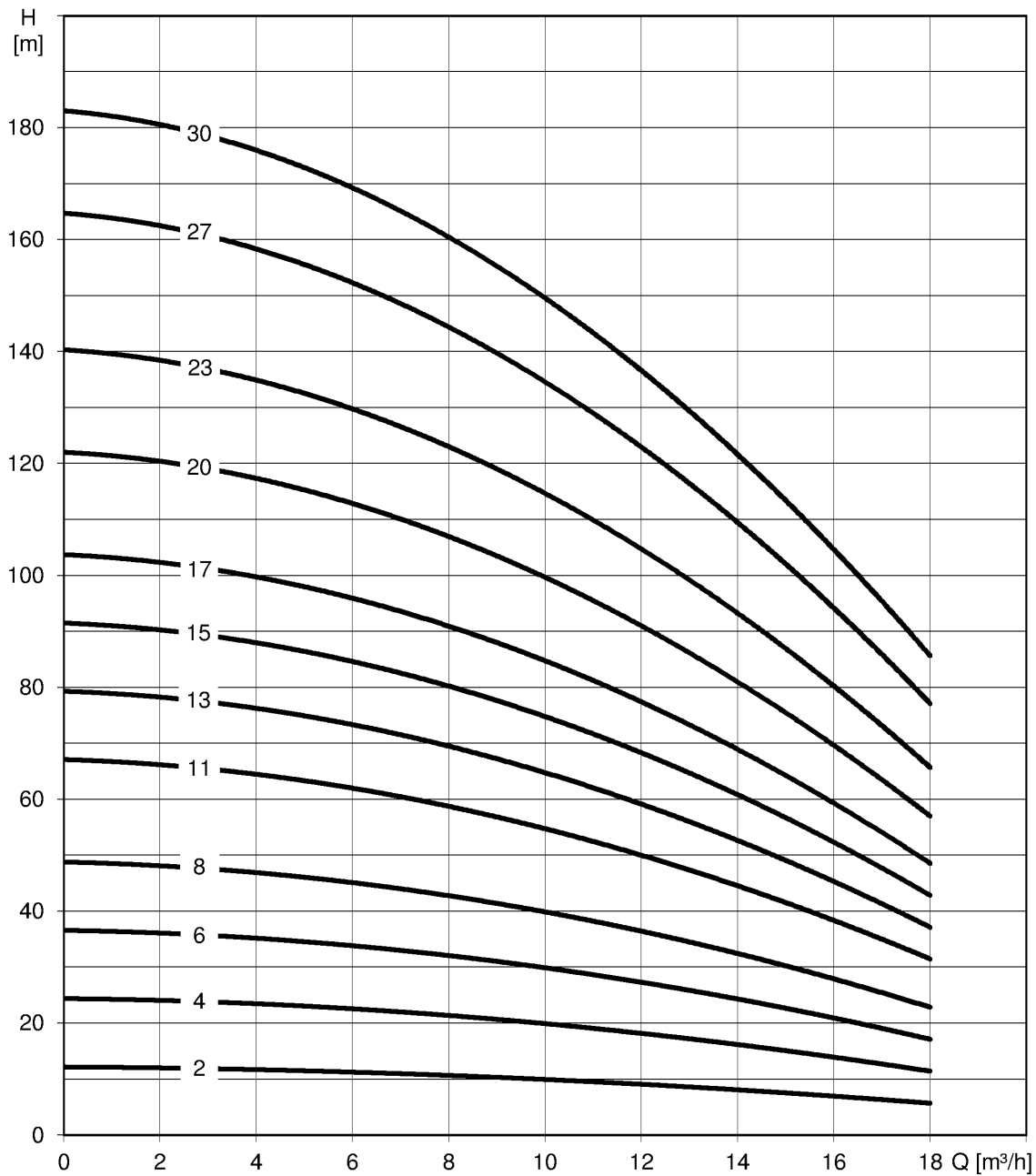
Type	Power		Amperes 400V [A]	Delivery rate Q										Length l [mm]	Weight m [kg]
	[kW]	[HP]		[l/s]	0.56	0.83	1.11	1.39	1.67	1.81	1.94	2.22			
				[m³/h]	2.0	3.0	4.0	5.0	6.0	6.5	7.0	8.0			
po-ss-7- 2/4.5	0.37	0.5	1.6	Delivery head H [m]	11	11	11	10	9	8	7	5	468	9	
po-ss-7- 3/4.5	0.37	0.5	1.6		17	16	16	15	14	12	11	8	492	9	
po-ss-7- 4/4.5	0.55	0.75	1.9		22	22	21	20	18	16	15	10	536	10	
po-ss-7- 6/4.5	0.75	1.0	2.4		34	33	32	30	27	25	22	16	615	12	
po-ss-7- 9/4.5	1.1	1.5	3.4		50	49	48	45	41	37	33	23	707	14	
po-ss-7-12/4.5	1.5	2.0	4.4		67	65	64	60	54	49	44	31	841	17	
po-ss-7-15/4.5	2.2	3.0	5.9		84	82	80	75	68	62	55	39	959	20	
po-ss-7-18/4.5	2.2	3.0	5.9		101	98	96	90	81	74	66	47	1031	21	
po-ss-7-22/4.5	3.0	4.0	8.3		123	120	117	110	99	90	81	57	1279	29	
po-ss-7-25/4.5	3.0	4.0	8.3		140	136	133	125	113	103	92	65	1351	30	
po-ss-7-28/4.5	4.0	5.5	10.0		157	152	149	140	126	115	103	73	1493	35	
po-ss-7-31/4.5	4.0	5.5	10.0		174	169	165	156	140	128	115	81	1566	36	
po-ss-7-34/4.5	4.0	5.5	10.0		190	185	180	171	153	140	126	88	1638	37	
po-ss-7-38/4.5	5.5	7.5	14.0		213	207	202	191	171	156	140	99	1805	42	
po-ss-7-42/4.5	5.5	7.5	14.0		235	228	223	211	189	173	155	109	1901	43	
po-ss-7-46/4.5	5.5	7.5	14.0		257	250	244	231	207	189	170	119	1998	44	
po-ss-7-52/4.5	7.5	10.0	17.4		291	283	276	261	234	214	192	135	2222	50	
po-ss-7-57/4.5	7.5	10.0	17.4		319	310	302	286	257	234	211	148	2343	52	
po-ss-7-62/4.5	7.5	10.0	17.4	347	337	329	311	279	255	229	161	2463	54		

up to 3.7 kW also available in 1 ~ / 230 V version

minimum efficiency index MEI ≥ 0.4

subject to alterations

**po-ss-13/4.5**  
2850 1/min - 50 Hz



subject to alterations

**po-ss-13/4.5**  
2850 1/min - 50 Hz

Type	Power [kW] [HP]		Amperes 400V [A]	Delivery rate Q									Length l [mm]	Weight m [kg]
				[l/s]	1.11	1.67	2.50	2.78	3.61	<b>3.89</b>	4.44	5.0		
				[m³/h]	4	6	9	10	13	<b>14</b>	16	18		
<b>po-ss-13- 2/4.5</b>	0.55	0.75	1.9	Delivery head H [m]	12	11	10	10	9	<b>8</b>	7	6	577	12
<b>po-ss-13- 4/4.5</b>	1.1	1.5	3.4		23	23	21	20	17	<b>16</b>	14	11	777	16
<b>po-ss-13- 6/4.5</b>	1.5	2.0	4.4		35	34	31	30	26	<b>24</b>	21	17	989	20
<b>po-ss-13- 8/4.5</b>	2.2	3.0	5.9		47	45	41	40	34	<b>32</b>	28	23	1184	24
<b>po-ss-13-11/4.5</b>	3.0	4.0	8.3		65	62	57	55	47	<b>45</b>	38	31	1560	34
<b>po-ss-13-13/4.5</b>	4.0	5.5	10.0		76	73	67	65	56	<b>53</b>	45	37	1780	39
<b>po-ss-13-15/4.5</b>	4.0	5.5	10.0		88	85	78	75	65	<b>61</b>	52	43	1930	41
<b>po-ss-13-17/4.5</b>	5.5	7.5	14.0		100	96	88	85	73	<b>69</b>	59	48	2150	46
<b>po-ss-13-20/4.5</b>	5.5	7.5	14.0		117	113	103	100	86	<b>81</b>	70	57	2375	49
<b>po-ss-13-23/4.5</b>	7.5	10	17.4		135	130	119	115	99	<b>93</b>	80	66	2680	56
<b>po-ss-13-27/4.5</b>	7.5	10	17.4		158	152	140	134	116	<b>110</b>	94	77	2980	60
<b>po-ss-13-30/4.5</b>	7.5	10	17.4		176	169	155	149	129	<b>122</b>	105	86	3205	63

up to 3.7 kW also available in 1 ~ / 230 V version

minimum efficiency index MEI  $\geq$  0.4

subject to alterations